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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,389	10/20/2003	Sarath Babu Govindarajulu	073671.0185	4150

7590 12/23/2005

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EXAMINER	
VU, TRISHA U	

ART UNIT	PAPER NUMBER
2112	

DATE MAILED: 12/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/689,389	GOVINDARAJULU ET AL.	
	Examiner	Art Unit	
	Trisha Vu	2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-59* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-59* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 06/09/05, 02-25-05, 08-06-04, 09-03-04
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-59 are presented for examination.

Information Disclosure Statement

The information disclosure statement filed 08-06-04 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. There is no copy of "Products, AnyCOM Bluetooth Products", ANYCOM, 1 page.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 3-30, and 32-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mowery et al. (US Pub. No. 2003/0083013) (hereinafter Mowery) in view of Specification of the Bluetooth System (Version 1.0 B, Volumes 1 and 2, December 1st, 1999) (hereinafter Bluetooth Specification)

As to claims 1 and 59, Mowery teaches a system for automatically establishing a wireless connection between adapters, the system comprising: a master adapter

coupleable to a peripheral device (e.g. adapter 465 coupled to computer 455), one or more slave adapters coupled to one or more computer system (built-in adapter coupled to peripheral 510 e.g. PDA) (note at least Mowery paragraphs [0035] and [0042-0045], and also note paragraph [0034] wherein any device can have the master or slave role and the role can be exchanged, therefore the built-in adapter in Mowery can have master role as well. This master/slave role is also taught in Bluetooth Specification, at least page 95 of Volume 1: "the names 'master' and 'slave' only refer to the protocol on the channel: Bluetooth unit themselves are identical; that is, any unit can become a master of a piconet. Once a piconet has been established, master-slave roles can be exchanged". However, for simplification, adapter 465 is being cited as the master adapter, and the built-in adapter is being cited as the slave adapter unless otherwise cited in some claims), the master adapter being operable to enable communication between the peripheral device and the one or more computer systems via one or more wireless connections using a wireless protocol in a operational mode (paragraph [0036]). Mowery does not explicitly disclose the detail of establishing Bluetooth connection between the devices. However, since Mowery referred to Bluetooth communication, Bluetooth Specification is further cited to show establishing Bluetooth connection between the devices as well-known in Bluetooth technology. Bluetooth Specification teaches automatically entering an inquiry mode in response to the occurrence of a first event (e.g. the Bluetooth device enters the Periodic Inquiry Mode that performs an automatic Inquiry in response to e.g. Command Complete event of the latest periodic Inquiry process or in response to a time-out event, at least pages 376-378 of Volume 1), the master device being operable to

automatically establish one or more wireless connections between the master device and one or more slave devices in the inquiry mode; and automatically enter an operational mode in response to the occurrence of a second event (e.g. the devices can proceed to communicate (operational mode) after a successful connection initializing procedure, at least page 153 of Volume 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the Bluetooth communication as taught by Bluetooth Specification in the system of Mowery to establish wireless connection between devices. Also, communication using Bluetooth provides so many advantages including robustness, low complexity, low power, and low cost (Bluetooth Specification, page 41 of Volume 1).

As to claim 3, Bluetooth Specification further teaches the second event comprises the master adapter successfully establishing the one or more wireless connections (e.g. the devices can proceed to communicate (operational mode) after a successful connection initializing procedure, at least page 153 of Volume 1).

As to claim 4, Bluetooth Specification further teaches to automatically establish the one or more wireless connections between the master adapter and the one or more slave adapters, the master adapter automatically scans one or more wireless communication channels to detect the one or more slave adapters (at least pages 108-110).

As to claim 5, Bluetooth Specification further teaches the one or more slave adapters each have an identifier (address); and in response to the master adapter automatically scanning the one or more wireless communication channels, the master

adapter receives from each of the one or more slave adapters the identifier (address) of the slave adapter (the slave responses with its address, page 111 of Volume 1).

As to claim 6, Bluetooth Specification further teaches at least one of the identifiers is a BLUETOOTH address (the slave responses with its address, page 111 of Volume 1).

As to claim 7, Bluetooth Specification further teaches after the master adapter has detected a slave adapter, the master adapter automatically communicates a connect request to the detected slave adapter (e.g. Connection Request on page 278 of Volume 1).

As to claim 8, Bluetooth Specification further teaches the master adapter uses a BLUETOOTH address of the detected slave adapter to communicate the connect request to the detected slave adapter (pages 278 and 549 of Volume 1).

As to claim 9, Bluetooth Specification further teaches the connection request comprises a protocol service multiplexer (PSM) of the master adapter (page 278 of Volume 1).

As to claim 10, Bluetooth Specification further teaches the master adapter is operable to automatically: receive, from the detected slave adapter, an acknowledgement of the connect request (connection response, page 279 of Volume 1); communicate a password request to the detected slave adapter; receive a password from the detected slave adapter; determine whether the password is valid; and enable communication between the peripheral device and the computer system in the operational mode only if the password is valid (link key and authentication, pages 153-155 of Volume 1).

As to claim 11, Bluetooth Specification further teaches when a wireless connection between the master adapter and a slave adapter coupled to a computer system is established, the master adapter: obtains data (e.g. address info, link key, etc.) associated with the slave adapter; and stores the data to enable communication between the peripheral device and the computer system coupled to the slave adapter (pages 111, 153-155 of Volume 1).

As to claim 12, Bluetooth Specification further teaches the data comprises one or more of: an identifier of the slave adapter; a link key associated with the slave adapter; a personal identification number (PIN) code associated with the slave adapter; a power level associated with the slave adapter; and an access code associated with the slave adapter (pages 111, 153-155 of Volume 1).

As to claim 13, Mowery further teaches the wireless protocol is a BLUETOOTH protocol (e.g. paragraph [0036]).

As to claim 14, Mowery further teaches one or more universal serial bus (USB) connections are useable to couple the master adapter to the peripheral device (paragraph [0041]). Also note Bluetooth Specification at least page 527 of Volume 1: "Bluetooth devices will have various physical bus interfaces... The Bluetooth Host Controller will initially support two physical bus architectures, USB, and PC Card".

As to claim 15, Mowery further teaches the peripheral device is one or more of: a printer; a scanner; a digital camera; a modem; a joystick; a webcam; a personal digital assistant (PDA); a mouse; a keyboard; and a port replicator (when the built-in adapter has master role, paragraph [0035]).

As to claim 16, Mowery further teaches the computer system being one of: a personal digital assistant (PDA); a laptop computer system; and a desktop computer system (PDA, paragraph [0035]).

As to claim 17, Mowery further teaches in the operational mode, the master adapter automatically determines, at predetermined intervals, whether the master adapter is coupled to the peripheral device (Periodic Inquiry Mode, at least pages 376-378 of Volume 1).

As to claim 18, Mowery further teaches the master adapter is further operable to automatically indicate to a user that the master adapter has switched from the inquiry mode to the operational mode (the master contains the service discovery application to initiate discoveries and display the results of these discoveries to user, thus the user will be notified whether or not the connection establishing is successful, at least page 69 of Volume 2).

As to claim 19, Mowery teaches a system for automatically establishing a wireless connection between adapters, the system comprising: a slave adapter coupled to a computer system (e.g. built-in adapter coupled to peripheral 510 e.g. PDA), a master adapter coupled to a peripheral device (adapter 465 coupled to computer 455) (note at least Mowery paragraphs [0035] and [0042-0045], and also note paragraph [0034] wherein any device can have the master or slave role and the role can be exchanged, therefore the built-in adapter in Mowery can have master role as well. This master/slave role is also taught in Bluetooth Specification, at least page 95 of Volume 1 "the names 'master' and 'slave' only refer to the protocol on the channel: Bluetooth unit themselves

are identical; that is, any unit can become a master of a piconet. Once a piconet has been established, master-slave roles can be exchanged". However, for simplification, adapter 465 is being cited as the master adapter, and the built-in adapter is being cited as the slave adapter unless otherwise cited in some claims). Mowery does not explicitly disclose the detail of establishing Bluetooth connection between the devices. However, since Mowery referred to Bluetooth communication, Bluetooth Specification is further cited to show establishing Bluetooth connection between the devices as well-known in Bluetooth technology. Bluetooth Specification teaches the slave device being operable to automatically: receive a message from the master adapter (e.g. Inquiry message); respond to the message to establish a wireless connection between the master adapter and the slave adapter (the slave responses with its address, page 111 of Volume 1); and after the wireless connection has been established, enable communication between the computer system and the peripheral device via the wireless link using Bluetooth wireless protocol (the devices can proceed to communicate after the connection has been established in initialization procedure, at least page 153 of Volume 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the Bluetooth communication as taught by Bluetooth Specification in the system of Mowery to establish wireless connection between devices. Also, communication using Bluetooth provides so many advantages including robustness, low complexity, low power, and low cost (Bluetooth Specification, page 41 of Volume 1).

As to claim 20, Bluetooth Specification further teaches the message from the master adapter is a scan message (Inquiry message to scan for other Bluetooth devices

that are within the range); and in response to the scan message, the slave adapter communicates an identifier (address) of the slave adapter to the master adapter (the slave responses with its address, page 111 of Volume 1).

As to claim 21, Bluetooth Specification further teaches the identifier of the slave adapter is a BLUETOOTH address (the slave responses with its address, page 111 of Volume 1).

As to claim 22, Bluetooth Specification further teaches the slave adapter is operable to: receive a connect request (connection request) from the master adapter in response to the slave adapter communicating the identifier of the slave adapter to the master adapter, the connect request comprising a protocol service multiplexer (PSM) of the master adapter; determine whether the PSM of the master adapter corresponds to a PSM of the slave adapter; and if the PSM of the master adapter corresponds to the PSM of the slave adapter, communicate an acknowledgement (connection response) to the master adapter to establish a wireless connection between the master adapter and the slave adapter (e.g. Value 0x0000 indicates Connection successful, Value 0x0002 indicates Connection refused – PSM not supported, pages 278-280 of Volume 1).

As to claim 23, Bluetooth Specification further teaches the slave adapter is operable to: receive a password request from the master adapter in response to the slave adapter communicating the acknowledgement to the master adapter; and communicate a password to the master adapter (link key and authentication, pages 153-155 of Volume 1).

As to claim 24, Bluetooth Specification further teaches when the wireless connection between the master adapter and the slave adapter is established, the slave adapter communicates data associated with the slave adapter (e.g. address info, link key, etc.) to the master adapter that enables communication between the computer system and the peripheral device via the wireless link (pages 111, 153-155 of Volume 1).

As to claim 25, Bluetooth Specification further teaches the data comprises one or more of: an identifier of the slave adapter; a link key associated with the slave adapter; a personal identification number (PIN) code associated with the slave adapter; a power level associated with the slave adapter; and an access code associated with the slave adapter (pages 111, 153-155 of Volume 1).

As to claim 26, Mowery further teaches the wireless protocol is a BLUETOOTH protocol (e.g. paragraph [0036]).

As to claim 27, Mowery further teaches one or more universal serial bus (USB) connections are used to couple the slave adapter to the computer system (paragraph [0041]). Also note Bluetooth Specification at least page 527 of Volume 1: "Bluetooth devices will have various physical bus interfaces... The Bluetooth Host Controller will initially support two physical bus architectures, USB, and PC Card".

As to claim 28, Mowery further teaches the peripheral device is one or more of: a printer; a scanner; a digital camera; a modem; a joystick; a webcam; a personal digital assistant (PDA); a mouse; a keyboard; and a port replicator (when the built-in adapter has master role, paragraph [0035]).

As to claim 29, Mowery further teaches the computer system is one or more of: a personal digital assistant (PDA); a laptop computer system; and a desktop computer system (e.g. PDA, paragraph [0035]).

Claims 30 and 32-47 are directed to method of system claims 1 and 3-18. Mowery and Bluetooth Specification, in combination, teach the system as set forth in claims 1 and 3-18. Therefore, Mowery and Bluetooth Specification, in combination, also teach the method as set forth in claims 30 and 32-47.

Claims 48-58 are directed to method of system claims 19-29. Mowery and Bluetooth Specification, in combination, teach the system as set forth in claims 19-29. Therefore, Mowery and Bluetooth Specification, in combination, also teach the method as set forth in claims 48-58.

3. Claims 2 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mowery et al. (US Pub. No. 2003/0083013) (hereinafter Mowery) in view of Specification of the Bluetooth System (Version 1.0 B, December 1st, 1999) (hereinafter Bluetooth Specification), and further in view of Mikuni et al. (US Patent No. 6,785,748) (hereinafter Mikuni).

As to claims 2 and 31, the argument above for claim 1 and 30 apply. However, Mowery does not explicitly disclose the first event comprises one or more of the following: the master adapter being powering up; the master adapter being uncoupled from the peripheral device; and the master adapter being reset. Bluetooth Specification further teaches "before any two Bluetooth-equipped devices can communicate with each other the following may be needed: the devices need to be powered-on and initialized..."

(page 71 of Volume 1). Mikuni reference is further cited to show communication between Bluetooth devices wherein the master device automatically enters inquiry mode in response to the master device being powering up (at least Figs. 5 and 9 and col. 14 lines 51-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include automatically entering inquiry mode in response to the master device being powering up as taught by Bluetooth Specification and/or Mikuni in the system of Mowery to immediately establish wireless connection after the device is powered and also to eliminate the need for user to initiate the wireless connection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, as the art teaches wireless communication/Bluetooth:

US Patent	6,519,290	Green
US Pub. No.	2004/0198219	Malmstrom et al.
US Pub. No.	2004/0090984	Saint-Hilaire et al.
US Patent	6,907,226	Kang et al.
US Patent	6,898,652	Peters et al.
US Patent	6,870,733	Castell et al.
US Patent	6,826,123	Herring
US Patent	6,751,231	Fellman et al.
US Patent	6,603,744	Mizutani et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trisha Vu whose telephone number is 571-272-3643. The examiner can normally be reached on Mon-Thur and alternate Fri 8:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on 571-272-3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Trisha Vu
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12/19/05